

CLAIMS

1. An implantable cardiac stimulator, in particular a cardiac pacemaker or cardioverter/defibrillator (ICD), comprising a ventricular detection unit (VS) which is to be connected to an intracardiac electrode (16; 18) and is adapted to record and detect ventricular events, and a ventricular stimulation unit (VP) which is to be connected to a ventricular electrode (16; 18) and is adapted to produce ventricular stimulation pulses for delivery to the ventricle of a heart (10), and a control unit (30) which is connected to the ventricular detection unit (VS) and to the ventricular stimulation unit (VP) and is adapted to actuate the ventricular stimulation unit (VP) in a VVI mode in ventricle-inhibited fashion in such a way that a ventricular stimulation pulse is triggered at a moment in time predetermined by a stimulation rate if it is not inhibited by detection of a natural ventricular contraction by means of the ventricular detection unit (VS) within a predetermined time window, characterized in that the control unit (30) is adapted to predetermine a stimulation rate which is higher than an in particular intrinsic rate appropriate to the physiological demand.

2. A cardiac stimulator as set forth in claim 1 characterized in that the control unit (30) is adapted to predetermine a fixed stimulation rate of between 70 and 90 per minute, preferably about 80 per minute.

3. A cardiac stimulator as set forth in claim 1 characterized in that the control unit (30) is adapted to predetermine a variable stimulation rate in dependence on indirectly or directly detected transconductions of atrial stimuli by way of an AV node of a heart from the atrium to the ventricle of the heart, in such a way that the number of transconductions or the number of transconducted stimuli within a predetermined time or in relation to a predetermined number of ventricular events does not exceed a predetermined degree.

4. A cardiac stimulator as set forth in claim 3 characterized in that the control unit (30) is adapted to increase the variable stimulation rate if the number of transconductions or the number of transconducted stimuli exceeds the predetermined degree.

5. A cardiac stimulator as set forth in claim 3 or claim 4 characterized in that the predetermined degree is a single transconduction or a single transconducted stimulus.

6. A cardiac stimulator as set forth in claim 3 or claim 4 characterized in that the predetermined degree is between 10 and 20% of transconductions or between 10 and 20% of transconducted stimuli in relation to a total number of ventricular events.

7. A cardiac stimulator as set forth in one of claims 1 through 6 characterized in that the control unit (30) is adapted to set a ventricular stimulation rate in dependence on the number of episodes of ventricular tachycardia within a predetermined period of time or in relation to a predetermined number of ventricular events.

8. A cardiac stimulator as set forth in claim 7 characterized in that the control unit (30) is adapted to increase the variable stimulation rate when the number of episodes of ventricular tachycardia exceeds a predetermined limit value.

9. A cardiac stimulator as set forth in claim 8 characterized in that the predetermined limit value is 5% of episodes of ventricular tachycardia in relation to the total number of ventricular events.

10. A cardiac stimulator as set forth in claim 1 characterized in that the control unit (30) is adapted to form an overstimulation rate as a variable stimulation rate from an atrially detected intrinsic base rate or a physiologically adequate base rate ascertained by detection and

evaluation of a physiological demand of a patient, in such a way that the overstimulation rate is higher than the base rate by a difference rate.

11. A cardiac stimulator as set forth in claim 10 characterized in that the control unit (30) is adapted to set the difference rate in dependence on the number of detected stimulus transconductions from the atrium to the ventricle within a predetermined retrospective period of time, in such a way that the control unit (30) increases the difference rate if the number of detected stimulus transconductions exceeds a predetermined degree.

12. A cardiac stimulator as set forth in claim 4, claim 8 or claim 10 characterized in that the control unit (30) is adapted to gradually reduce the variable stimulation rate until an increase in the variable stimulation rate occurs again.